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ABSTRACT

This document presents a description and evaluation of the bilingual program for children in Bilingual Class for Retarded and Mental Development (BCRMD), a program designed to provide bilingual instructional and supportive services to eligible BCRMD students. The program provided supplementary bilingual bicultural services to 153 mentally retarded pupils, of whom 108 were non-English dominant and 45 were English dominant. The program operated in four BCRMD schools. Each school was provided with a project team made up of a Bilingual Resource Room Teacher and a Bilingual Paraprofessional. The primary goal of the program was to provide equal educational opportunity for non-English speaking children through activities that would maximize their native language proficiency while developing competence in English. The program also sought to train bilingual teachers and to develop a bilingual-bicultural curriculum. The bilingual resource room teams served two kinds of Spanish-speaking students: those most limited in English speaking ability, and those less limited. The first group received daily bilingual instruction in CORE curriculum, language arts, math, English as a second language and cultural heritage. The second group received supportive bilingual instruction three times per week. Unlike the first group, these students received their developmental reading instruction in English. Findings indicated that success was achieved in Spanish reading, mathematics, CORE curriculum, cultural heritage and self concept. Pupils failed to achieve success in English as a second language. (Author/AM)

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EVALUATION REPORT

Function No. 09-67602

ED137449

BILINGUAL PROGRAM FOR CHILDREN IN BUREAU CRMD CLASSES

SCHOOL YEAR 1975-1976

PROGRAM EVALUATOR: DR. NORMAN SIROTA

An evaluation of a New York City school district educational project funded under Title VII of the Elementary and Secondary Education Act of 1965 (PL 89-10) performed for the Board of Education of the City of New York for the 1975-76 school year

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CHAPTER I

THE PROGRAM

This Bilingual Program for Children in BCRMD classes was designed to provide bilingual instructional and supportive services to eligible BCRMD students under funding from Title VII in the period from July, 1975 through June, 1976. The primary goal of the bilingual education program was to provide equal educational opportunity for non-English speaking children through activities capitalizing on their native language proficiency while developing competence in English. Two complementary goals are inherent in the program: the training of bilingual teachers and the development of bilingual-bicultural curriculum employing the talents of the total learning community (teacher, administrators, parents, lay persons and pupils) in order to build upon the cultural heritage of various participating ethnic groups.

The program provided supplementary bilingual bicultural services to 153 mentally retarded pupils, of whom 108 were non-English dominant and 45 were English dominant. All of these pupils participated in the regular BCRMD instructional program.

The program operated in four BCRMD schools: PS 171M, PS 10K, PS 42X, and PS 150Q. Each school was provided a project team consisting of a Bilingual Resource Room Teacher and a Bilingual Paraprofessional. In addition, each school received the services of a Bilingual Speech Teacher, Bilingual Teacher Trainer and a Bilingual Teacher in School and Community Relations on an itinerant basis. The program was supervised by a Project Director who also maintained a Bilingual Resource Center located at the Bureau for Children with Retarded Mental Development. He was assisted by a Bilingual Curriculum Specialist, Bilingual School Aide and a Bilingual Secretary.

The bilingual resource room teams served two groups of Spanish-speaking pupils: Group I consisted of pupils most limited in English-speaking ability; Group II consisted of pupils less limited in English-speaking ability. The first group received daily bilingual instruction in the CORE curriculum, language arts and mathematics. They also received instruction in English as a second language and cultural heritage. For this group, developmental reading was conducted in Spanish. Overall the language usage ratio to which they were exposed was 7 : 30, Spanish : English.

The second group of pupils received supportive bilingual instruction three times per week. Unlike their Spanish dominant peers, their developmental reading program was conducted in English. The bilingual resource room team provided whole-class instruction to both groups of pupils in Cultural Heritage to maximize interaction and foster communication among all targeted pupils. Overall the language usage-ratio to which group II pupils were exposed approximated 40 : 60, Spanish : English.

Staff training and dvelopment was structured around a regular workshop schedule run by the Project Director in conjunction with consultants and graduate school work at CUNY and other metropolitan area universities. One half day each week, project personnel met with the Project Director for purposes of in-service training. The Appendix indicates the areas of concern at the various in-service staff meetings. In all there were 29 workshops provided.

Recruitment efforts of Resource Specialists and the Bilingual Teacher in School and Community Relations resulted in the participation of four parents (one from each school) on the Project Advisory Committee. Committee meetings were scheduled on a bimonthly basis throughout the school year.

As a result of these meetings, parent representatives advocated the development of a workshop at which parents from each of the four schools could participate. This workshop will take place during the subsequent school year.

Throughout the program, three series of mini parent workshops were conducted at each school, independent of the Advisory Committee. These workshops addressed the following subjects: program orientation, speech and language development at home, and curriculum development and instructional materials for home use.

CHAPTER II

EVALUATION PROCEDURES

A. Evaluation Design

Evaluation Objective #1 - English as a Second Language:

a) It is expected that posttest performance for at least 60% of the treatment group will surpass pretest performance by at least 2 points when results of the Bilingual Syntax Measure are submitted to analysis.

b) It is expected that posttest performance for 60% of the treatment group will surpass pretest performance by at least 3 points when results of the Test of Comprehension of Oral Language (Level 1) are submitted to analysis

Subject: All Spanish-speaking BCRMD pupils receiving ESL instruction under Title VII funding.

Methods and Procedures: All subjects will be administered, on a pre-posttest basis, both the Bilingual Syntax Measure and the Test of Comprehension of Oral Language to ascertain improvement in the expressive and receptive modes of language fluency. Data will be assembled by the Project Director in accordance with the needs of the evaluator.

Data Analysis: Frequency distributions of pupil achievement in each area of fluency measured will be presented in the evaluation report. Data will be analyzed to determine the percentage of pupils who achieve the growth expectations specified.

Time Schedule: Pretest Administration - Oct, 1975

Posttest Administration - May, 1976

Evaluation Objective #2: - Spanish Reading:

a) For the Pre-primary and Trainable Mentally Retarded Population:

It is expected that posttest performance for 60% of the treatment group will surpass pretest performance by at least 5 points when results of the Prueba de Destrezas Basicas en Lectura are submitted to analysis.

b) For the Primary level population:

It is expected that posttest performance for 60% of the treatment group will surpass pretest performance by at least 10 points when results of the Prueba de Destrezas Basicas en Lectura are submitted to analysis.

c) For the Intermediate level population:

It is expected that posttest performance for 60% of the pupils will surpass pretest performance by at least 10 points when results of the Prueba de Destrezas Basicas en Lectura are submitted to analysis:

Subjects: All Spanish-speaking BCRMD pupils receiving Spanish reading instruction under Title VII funding.

Methods and Procedures: Each subject will be administered the appropriate level of the standardized test on a pre-post basis. The Project Director will assemble the data in accordance with the format specified by the evaluator to facilitate data analysis.

Data Analysis: For each level of the treatment group, data will be analyzed separately to ascertain the percentage of pupils who achieve growth expectations specified.

Time Schedule: Pretest Administration - Oct, 1975

Posttest Administration - May, 1976

Evaluation Objective #3 - Mathematics:

a) For the Pre-primary and Trainable Mentally Retarded population:

It is expected that posttest performance for 60% of the treatment group will surpass pretest performance by at least 3 points when results of the Stanford Early School Achievement Test, Level 1 are submitted to analysis.

b) For the Primary level population:

It is expected that posttest performance for 60% of the treatment group will surpass pretest performance by at least 5 points when results of the Stanford Early School Achievement Test, Level 2, are submitted to analysis.

c) For the Intermediate level population:

It is expected that posttest performance for 60% of the pupils will surpass pretest performance by at least 5 points when results of the Prueba de Destrezas Basicas en Aritmetica are submitted to analysis.

Subjects: All Spanish-speaking BCRMD pupils receiving bilingual instruction under Title VII funding.

Methods and Procedures: Each subject will be administered the appropriate level of the standardized test on a pre-post basis. The Project Director will assemble the data in accordance with the format specified by the evaluator to facilitate data analysis.

Data Analysis: For each level of the treatment group, data will be analyzed separately to ascertain the percentage of pupils who achieve growth expectations specified.

Time Schedule: Pretest Administration - Oct., 1976

Posttest Administration - May, 1976

Evaluation Objective #4 - CORE Curriculum:

It is expected that posttest performance for 60 % of the treatment group will surpass pretest performance by at least 4 points when results of the project-developed instrument to measure mastery of CORE Curriculum are submitted to analysis.

Subject: All Spanish-speaking BCRMD pupils receiving bilingual instruction under Title VII funding.

Methods and Procedures: A project-developed instrument to measure mastery of CORE Curriculum will be administered to all subjects on a pre-posttest basis. The Project Director will assemble the data in accordance with the format specified by the evaluator to facilitate data analysis.

Data Analysis: A frequency distribution of pupil achievement will be prepared and presented in the evaluation report. Data will be analyzed to ascertain the percentage of pupils who achieve the growth expectations specified.

Time Schedule: Pretest Administration - Oct., 1975
Posttest Administration - May, 1976

Evaluation Objective #5 - Cultural Heritage:

It is expected that at least 70 percent of the treatment group will attain at least the criterion level set for passing subject content when the post test results of a project-developed instrument to assess knowledge of cultural heritage are submitted to analysis.

Subject: All BCRMD pupils receiving instruction in cultural heritage under Title VII funding.

Methods and Procedures: A project-developed test to assess knowledge of cultural heritage will be administered to all subjects on

a posttest only basis. Results of this test will be assembled by the Project Director in accordance with the format specified by the evaluator in order to expedite data analysis.

Data Analysis: A frequency distribution of pupil achievement will be prepared and presented in the evaluation report for each level of the test. Data will be analyzed to determine the percentage of pupils that achieve the criterion level set for mastery.

Time Schedule: Posttest Administration - May, 1976

Evaluation Objective #6 - Attitude/Self Concept:

It is expected that student attitude/self concept will reflect a pre-posttest gain which is statistically significant at the .05 level when the results of the Primary Self Concept Inventory are submitted for analysis by a correlated t test.

Subject: All Spanish-speaking BCRMD pupils receiving bilingual instruction under Title VII funding who score below the 50th percentile on the Primary Self Concept Inventory.

Methods and Procedures: The Primary Self Concept Inventory will be administered to all subjects on a pre-post basis. Program personnel will assemble the raw score data in accordance with the format specified by the evaluator to expedite data analysis.

Data Analysis: The difference between pretest-posttest ratio score means will be analyzed for statistical significance at the .05 level with a correlated t test.

Time Schedule: Pre test Administration - October, 1975

Posttest Administration - May, 1976

Evaluation Objective #7 - Process:

The evaluator will observe program activity, conduct interviews, and examine pertinent records to determine the extent of congruence between program proposal specifications and the actual implementation of the program; these data will be included summarily in the final examination.

The evaluator will observe activity and interview key personnel to determine strengths and weaknesses of the program in order to provide recommendations for recycling, planning and staff development; these data will be provided summarily in the final evaluation report.

B. Evaluation Instruments

In order to assess growth on the evaluation objectives, pupils were tested with eight instruments detailed as follows:

1. CORE Curriculum Test: These tests were developed by project staff on each of three levels to measure concepts and skills related to the BCRMD CORE Curriculum. Each test consists of 15 items on which pupil responses can be rated on six point rating scale (0 - 5). The areas covered vary according to the curriculum developed for each level. Among the units covered are family, food, shelter, clothing, health and hygiene, safety, manners, recreation, transportation, neighborhood, neighborhood behavior and citizenship.
2. English as a Second Language: Two instruments were chosen to assess growth in this area: The Bilingual Syntax Measure in the expressive mode and the Test of Comprehension of Oral Language (Level 1) in the receptive mode.

Bilingual Syntax Measure: This test is an inventory used to measure children's oral syntactical proficiency in Spanish by using natural speech as a basis for making judgements. Cartoon-type pictures and simple questions are used to elicit a pupil's response. The items and the scoring procedure have been developed to provide a valid indicator of oral proficiency independent of a child's cultural background or general information. Numerical scores provide a range of 0 - 18.

Test of Comprehension of Oral Language: This instrument is designed to provide an appraisal of a child's receptive language ability in the early stages of formal instruction. Level 1 consists of 35 items to which children respond by marking the picture that represents what the examiner orally presents. As such, it measures a child's comprehension of spoken language without requiring an oral or written response other than the mark required. This test is part of the Inter American Series by Guidance Testing Associates. Alternate forms in both Spanish and English language are provided.

3. Spanish Reading Comprehension: To measure improvement in this area, program chose to administer the Pruebas de Destrezas Basicas en Lectura (Nivel Primario Grados 1-2-3). This instrument consists of 126 items designed to assess recognition of letters and words, word meaning and reading comprehension. The selection of items, level of content and format were thought to be suitable for the non-English-speaking CRMD population. Since many of these pupils are of Puerto Rican heritage, the choice of pictures and words presented on the test items were judged appropriate.

4. Mathematics: Achievement in this area was assessed through the administration of two instruments: the Stanford Early School Achievement Test (Level 1 and 2) and the Pruebas de Destrezas Basicas en Aritmetica. Level 1 of the SESAT Mathematics subtest consists of 28 items designed to measure concepts generally developed informally prior to the introduction of a formal mathematics program. Children respond to questions presented orally by marking pictures that represent the answer. Concepts of number, space, quantity, shapes, size, weight, distance, time, cost, grouping and mathematical vocabulary represent the bulk of the items presented. SESAT, Level 2, consists of 55 items representative of an initial formal mathematics program. In addition to measuring knowledge of the concepts presented at Level 1, it provides items to assess facts of addition and subtraction as well as problem solving. Numerals are restricted to the integers 1 through 9.

The Prueba de Destrezas Basicas Aritmetica, Nivel Elemental, Grades 2, 3, consists of 93 items designed to assess fundamental concepts of mathematics, ability to perform simple problem solving and computations involving the fundamental operations with whole numbers. The test is presented in Spanish. The skill content, as well as the degree of mental maturity required by test procedures, was judged to be suitable for the academic and intellectual level of the bilingual BCRMD pupils targeted by the program.

5. Attitude/Self Concept: To assess improvement in this area program chose to administer the Primary Self Concept Inventory. This instrument, designed to identify children who have a low self concept, measures the child's self concept relevant to school success in 3 domains through 18 pictorial stimuli: Social-Self, Personal-Self and Intellectual-Self.

Two separate versions are available for boys and girls. Instructions can be given in either Spanish or English. This instrument is judged to be reliable and valid for the bilingual BCRMD pupils targeted by the program. Each item depicts at least one child in a positive role and in a negative role. The child is told a simple descriptive story about each illustration and is instructed to mark the picture showing the role that is most like himself. The highest possible score is 18 with a domain score of 3 and a factor score of 6. A total score of 13 or lower and a factor score of 4 or lower, is regarded as an indicator of undesirably "low" self concept.

6. Cultural Heritage: A project-developed test of 10 items on the primary level and 15 items on the intermediate level measures knowledge and understanding of Hispanic, Caribbean and Latin American cultural heritages in content areas of history, literature, music, geography, customs and traditions. The criterion set for mastery of content is 6 out of 10 items on the primary level and 9 out of 15 items for the intermediate level of the bilingual BCRMD population targeted. Both Spanish and English versions of this test have been developed.

Test Administration

TEST	PRE-TEST	POST-TEST
Bilingual Syntax Measure	Sept.- Nov.	May
Comprehension of Oral Language	Oct.- Dec.	May
CORE	Oct.- Nov.	May
Self-Concept	Oct.- Nov.	May
Reading	Nov.- Jan.	May
Math	Dec.	May

CHAPTER III

FINDINGS

Evaluation Objective #1 - English as a Second Language:

Under this objective, it was expected that 60 percent of the pre-primary, primary and intermediate pupils would achieve a pre-posttest gain of at least two points on the Bilingual Syntax Measure and at least three points on the Inter-American Series, Test of Comprehension of Oral Language, Level 1. This objective was not achieved for the pooled population.

Seventy-one Spanish-dominant pupils were tested with the Bilingual Syntax Measure on a pre-posttest basis to measure gains in the expressive mode of oral communication. Fifty-nine (59) percent achieved the gains expected. By subgroups, the percentage of pupils achieving the expected gains were: Pre-Primary and TMR pupils - 70 percent; Primary pupils - 62 percent; and Intermediate level pupils - 48 percent. Two of the three subgroups achieved the growth expectations specified for expressive language but the pooled group's gain (59 percent) did not reach the expectations set for this objective. This failure can be attributed to the low achievement of the Intermediate level population.

To measure program gains in the receptive mode of oral communication, the Spanish dominant pupils were given the Test of Comprehension of Oral Language on a pre-posttest basis. Analysis of the gains registered revealed only 43 percent achieving the three point gain expected. None of the three subgroups achieved the criterion set for success on this objective.

Analysis of the pretest results on this measure revealed that many pupils scored near the "ceiling" of this test, rendering the criterion set for achieving this objective inappropriate.

At that juncture, the Project Director sought to remedy the situation by securing a more advanced form of the test. The publishers were unable to provide the required instrument since Level 2 of this test was still classified as experimental pending the results of validation studies.

Table 1

Distribution of ESL Achievement by Percentage and Subgroup of BCRMD Pupils

Group	Pre-Primary/TMR		Primary		Intermediate		Total	
Test	N	Percent Achieving Criterion	N	Percent Achieving Criterion	N	Percent Achieving Criterion	N	Percent Achieving Criterion
Bilingual Syntax Measure (Expressive Mode)	17	70	29	62	25	48	71	59
Test of Comprehension of Oral Language (Receptive Mode)	17	59	30	47	25	28	72	43

Evaluation Objective #2 - Spanish Reading Comprehension:

For this objective, it was expected that at least 60 percent of the non-English speaking pupils receiving developmental reading instruction in Spanish would achieve the following gains on the Prueba de Destrezas en Lectura:

Pre-Primary and TMR pupils - at least five points
Primary and Intermediate pupils - at least ten points

This objective was achieved by the combined group as well as each subgroup. One hundred percent of the Pre-Primary/TMR pupils achieved a gain of at least five points from pretest to posttest. Eighty-five (85) percent of the Primary group and one hundred (100) percent of the Intermediate group achieved at least the ten point gain expected. Results of gains attained are summarized

in Table 2.

Table 2

Distribution of Achievement in Spanish Reading Skills
By Percentage and Subgroup of Spanish-Dominant BCRMD Pupils

Group	Pre-Primary/TMR		Primary		Intermediate		Total	
Test	N	Percent Achieving Criterion	N	Percent Achieving Criterion	N	Percent Achieving Criterion	N	Percent Achieving Criterion
Prueba de Destrezas en Lectura	9	100	13	85	6	100	28	93

Evaluation Objective #3 - Mathematics:

To evaluate this objective, Spanish and English-dominant Pre-Primary and Primary pupils were administered Levels 1 and 2 of the Stanford Early School Achievement Test (SESAT) in Mathematics. Intermediate level pupils were administered the Prueba de Destrezas en Aritmetica. The pretest was given in December 1975 and the posttest in May 1976. It was expected that at least 60 percent of the Pre-Primary group would gain at least three points on Level 1 of the SESAT; at least 60 percent of the Primary group would achieve at least a five point gain on level 2 of the SESAT; and at least 60 percent of the Intermediate group would achieve at least a five point gain on the Prueba de Destrezas en Aritmetica.

This objective was achieved. Each group attained the expectations set for this objective. The results are summarized in Table 3. Sixty-seven (67) percent of the Pre-Primary and TMR pupils, Sixty-four (64) percent of the Primary pupils and sixty-two (62) percent of the Intermediate pupils reached the criterion levels set for achievement of this objective. Overall, 64 percent

of the non-English speaking population targeted by the program demonstrated the gains expected.

Table 3

Distribution of Achievement in Mathematics
By Percentage and Subgroup of BCRMD Pupils

Group	Pre-Primary/TMR		Primary		Intermediate		Total	
Test	N	Percent Achieving Criterion	N	Percent Achieving Criterion	N	Percent Achieving Criterion	N	Percent Achieving Criterion
SESAT (Level 1)	18	66.7	-	-	-	-	72	64
SESAT (Level 2)	-	-	28	64.3	-	-		
Prueba de Destrezas en Aritmetica	-	-	-	-	26	61.5		

Evaluation Objective #4 - CORE Curriculum:

It was expected that at least sixty (60) percent of the Spanish-dominant mentally retarded pupils receiving native language instruction in the content of the CORE curriculum would achieve at least a four-point pre-posttest gain on a project-developed instrument tailored to Levels 1, 2, or 3 of the curriculum. Project staff developed three separate levels of a test tailored to the units of instruction presented in the BCRMD CORE Curriculum. Each test consisted of fifteen (15) items on which pupil responses could be rated on a scale ranging from 0-5. Thus, the maximum score that could be achieved was 75. The pretest was administered in October and November 1975; the post-test in May 1976.

The expectations set for success on this objective were achieved by each

subgroup of the non-English speaking population targeted. One hundred (100) percent of the pre-primary and TMR pupils, eighty-eight (88) percent of the Primary pupils and ninety-five (95) percent of the Intermediate pupils achieved at least a four-point gain on the CORE test. Overall, ninety-three (93) percent attained the growth expectation specified for this objective. The results are summarized in Table 4.

Table 4

Distribution of Achievement on the CORE Test
By Percentage and Subgroup of BCRMD Pupils

Group	Pre-Primary/TMR		Primary		Intermediate		Total	
Test	N	Percent Achieving Expectation	N	Percent Achieving Expectation	N	Percent Achieving Expectation	N	Percent Achieving Expectation
C.O.R.E.	16	100	26	88	21	95	63	93

Evaluation Objective #5 - Cultural Heritage:

It was expected that at least seventy (70) percent of the Primary and Intermediate Spanish and English-dominant pupils receiving instruction in cultural heritage would attain the criterion level set for mastery on a project-developed test to assess knowledge of cultural heritage administered on a post-test-only basis. A specially-devised instrument to measure cultural heritage knowledge was administered to the target population in May 1976. The level set for mastery for the Primary level pupils was six out of ten items correctly answered; for the Intermediate pupils, nine of 15 items was considered mastery.

Analysis of the posttest results showed that eighty-nine (89) percent of the pooled group achieved the expectation set for this objective. Thus, this objective was achieved. Table 5 summarizes the results.

Table 5

Distribution of Achievement in Cultural Heritage Knowledge By Percentage and Subgroup of BCRMD Pupils

Group	Pre-Primary/TMR		Primary		Intermediate		Total	
Test	N	Percent Achieving Criterion	N	Percent Achieving Criterion	N	Percent Achieving Criterion	N	Percent Achieving Criterion
Cultural Heritage	3	100	57	91	46	85	106	89

Evaluation Objective #6 - Attitude/Self Concept:

It was expected, for this objective, that there would be a statistically significant improvement in pupils' attitude/self esteem when results of the Primary Self Concept Inventory were analyzed with a correlated t test. This objective was achieved. The pretest was administered to all Spanish-dominant pupils targeted by the program in October and November 1975. The posttest was administered to those pupils scoring below the 50th percentile in May 1976. The mean gain achieved was 2.5 points on a test with a maximum score of 18. This gain was statistically significant at the .01 level. The results are summarized in Table 6. Although some of this growth can be attributed to regression effects, since the upper half of the target population was not includedin the posttest, it would appear that the actual mean gain of almost three (3) points on such a scale is educationally significant. To assess this objective next year, however, it is recommended that a different instrument be used to screen the pupils with low self concept prior to administering the measure selected to assess pre-posttest gain.

Table 6

Pre-Posttest Means, Standard Deviations and Results of Correlated t test for BCRMD Pupils for Attitude/Self Concept

		Pre-test		Posttest		Correlated	
Test	N	X	SDx	Y	SDy	t ratio	p
Primary Self Concept Inventory	35	11.0	2.4	13.5	2.4	6.89	.01

Evaluation Objective #7 - Process:

This objective was to determine the extent of congruence between program implementation and program proposal specifications. In addition, the evaluator was required to observe activity and interview key personnel to determine strengths and weaknesses in order to provide recommendations for recycling, planning and staff development.

On the basis of observations, interviews and examination of program records, the evaluator concludes that there were no substantial deviations from the proposal in the operation of the project. The program was implemented substantially as proposed in terms of staffing, curriculum development, target population, testing, staff training and parent orientation and involvement.

Time lines to achieve various process goals were substantially adhered to. Among the activities conducted successfully by the program staff were the following:

1. Project Director
   - provided pre-service staff orientation
   - coordinated testing program and placement of children
   - organized resource room schedules
   - coordinated 29 in-service staff workshops
   - held individual conferences with all staff members
   - coordinated 3 parent workshops in each project staff
   - supervised on-going program implementation

2. Curriculum Specialist
   - completed initial draft of bilingual CORE I curriculum: objectives and content
   - researched available materials and consulted with local curriculum development projects in conjunction with the writing of the bilingual CORE curriculum
   - provided suggestions for language arts activities in the classroom
   - visited project units to obtain input for curriculum development
   - provided suggestions and guidelines for curriculum practices and material usage at project staff workshops
   - held one parent workshop at each project school related to curriculum development

3. Teacher-Trainer
   - visited project sites, observed staff members, and held training sessions with individual staff members on an on-going basis
   - organized staff workshops related to teacher-training in the areas of Reading (Spanish), E.S.L., and Math
   - prepared guidelines and suggestions for the use of the Math Readiness Program in the instructional program
   - attended workshops which provided training in the use of videotape equipment (for future teacher training purposes)

4. Resource Room Teachers and Paraprofessionals
   - attended 29 professional workshops and 3 parent workshops
   - used behavioral objectives to develop lesson plans
   - demonstrated effective teaching of the bilingual CORE Curriculum, Language Arts, Mathematics, English as a Second Language and Cultural Heritage
   - demonstrated effective communication with parents of participating pupils
   - effectively utilized instructional materials provided
   - provided for individual needs of pupils through small-group and individual instruction

5. Bilingual Speech Teacher
   - conducted on-going weekly small-group and individual speech therapy and language development instruction in each project school
   - provided four teacher training demonstrations at each project school
   - held one parent workshop at each project school to familiarize parents with the speech program and to describe activities for helping children at home
   - conducted two workshops with the project staff concerning (1) the use of the Language Master program and (2) the problem of stuttering

6. Bilingual Teacher in School and Community Relations
   - estabished individual contact with parents of participating pupils via home visits, telephone calls, letter, school conferences
   - established communication with social service agencies in each project school area for purposes of pupil and parent referral
   - established on-going communication with BCRMD classroom and bilingual resource room teachers regarding matters related to pupil guidance and school-community relations.
   - recruited parent-members for the Project Advisory Committee and assisted in the coordination of committee meetings
   - provided parents with employment information and opportunites
   - planned three parent workshops in each project school and two professional development activities for project staff

- recruited parent-members for the Project Advisory Committee and assisted in the coordination of committee meetings
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As a result of interviews with project staff and analysis of responses to a questionnaire returned from personnel at each of the four project sites, the following opinions were elicited:

A. Perceptions of the most important aspects of the program which contributed to success were:

- teacher-paraprofessional team in the resource room
- use of the native language to provide training in reading and arithmetic
- the supportive services and training provided by project staff
- the communication with regular BCRMD personnel in each school
- the communication with Hispanic parents and their resultant involvement in school activities and workshops
- use of bilingual instructional materials
- the provision for intra-cultural education and the concomitant involvement of non bilingual classes in the program

B. The most inhibiting factors to program success elicited from personnel at the four project sites were:

- heterogeneous grouping of levels of BCRMD participants
- lack of space provided for the bilingual resource room (two schools)
- logistics of the pull-out resource room approach

C. The instructional practices considered most exemplary by respondents were:

- extensive use of individualized and small group instruction

- use of the electic approach and varied bilingual materials for reading instruction
- the extensive testing for selection and evaluation purposes

D. Among the recommendations for the program's operation in the coming year were:

- expansion to more sites
- provision to involve regular BCRMD staff in the in-service workshops
- introduction of a team-teacher approach where an English monolingual teacher and a bilingual teacher would work together
- the establishment of self-contained classes with provisions for integration of English-speaking and non-English-speaking children of close age and mental abilities.

CHAPTER IV

SUMMARY OF MAJOR FINDINGS AND CONCLUSIONS

On the basis of the evaluation findings, it is recommended that this program be refunded. The targeted bilingual CRMD pupils achieved the expectations on five of the six objectives where pre-posttesting was involved. Success was achieved in Spanish reading, mathematics, CORE curriculum, cultural heritage and attitude/self concept.

The only objective in which pupils failed to achieve success was in English as a Second Language. For the expressive aspect of this objective, two of the three subgroups achieved success while the intermediate group did not. For the receptive part of this objective, the program administered an inapproprate level of the test to many of the pupils precluding success at the outset.

On the basis of on-site observation, conferences, interviews with project personnel and questionnaire findings, the following conclusions can be made:

- The program was implemented substantially as proposed. Time lines were adhered to and enabling objectives were being achieved on schedule.
- Project staff assignments and responsibilities were clearly delineated and implemented.
- Screening and evaluation of pupils were conducted by project staff.
- There was a wide range of learning activities and teaching strategies to achieve cognitive and affective objectives.
- In-service training was comprehensive and thorough. Non-program personnel at project targeted schools were favorably impressed and expressed a desire to be involved with bilingual training.

- Parental involvement was implemented successfully. Parents at each of the four schools participated in three series of workshops presented by the Project Coordinator and bilingual staff specialists.
- Field training and curriculum development were well intergrated via in-service training workshops. Staff was able to increase their teaching strategies and develop innovative approaches.
- Cultural heritage activities, wherein Spanish-dominant and English-dominant pupils received combined instruction, resulted in a growing mutual respect and interest in each other's cultural backgrounds. The enrichment provided opportunities for the project to interact favorably with regular BCRMD personnel establishing a mechanism for increased parental involvement Enhanced community relations were created through this component of instruction.

CHAPTER V

RECOMMENDATIONS

The following recommendations are based upon on-site observations and interviews conducted with project personnel as well as analysis of questionnaire responses and pre-posttest data:

1. The program should be continued at the present sites and expanded to additional sites provided funding is available. The project resource team of a Bilingual Teacher and Bilingual Paraprofessional installed at each participating school has proven successful. In view of the wide-age-range composition of BCRMD bilingual classes, this team approach is vital to providing effective individual and grouped instruction.

2. Additional sites should be equipped with the audio-visual equipment and instructional materials that have proven so successful in the implementation of the Bilingual BCRMD Program.

3. Consideration should be given to providing additional resource personnel to strengthen the program. The program's implementation would be greatly enhanced by the services of an ESL Resource Specialist, Family Assistant and a Guidance Counselor.

4. Because of wide range in age and abilities of the target population, and the logistics involved in the present pull-out-type resource approach, the Program should consider providing bilingual instruction via self-contained bilingual CRMD classes. Perhaps a team-teaching effort, combining

a Bilingual teacher with a regular BCRMD teacher could be used. This approach would enable Spanish-dominant and English-dominant pupils of similar age and abilities to be grouped together.

5. Due to the large number of objectives, the testing program has become too extensive, interfering with classroom instructional time and progressing beyond the proposed pretest interval. The program should reduce the number of objectives and review the testing instrumentation with a view toward increasing instructional time available. Both ESL devices used should be replaced. The Bilingual Syntax Measure emphasizes grammatical correctness which is not a key discriminator of language facility for the mentally retarded. In addition the reading and mathematics tests used appear to be too difficult for this population.

APPENDIX

IN-SERVICE STAFF WORKSHOPS (1975-1976)

#1	10/2/75	Planning for Future Workshops (Planning Groups)
#2	10/8/75	Pre-Test Administration
#3	10/16/75	School Status Reports
#4	10/23/75	Project Record-Keeping
#5	10/30/75	Aspira Consent Devree: Assessment of BCRMD Pupils
#6	11/6/75	Discussion: "The Bi-dialectic and the Bilingual-Bicultural Scene" "What is Bilingual Education and What Makes a Bilingual Program Work?" (articles)
#7	11/20/75	Math Readiness Program
#8	12/4/75	Regional Cross-Cultural Training and Resource Center (RCTRC): Teaching Reading in Spanish
#9	12/11/75	Evaluation Design
#10	12/18/75	Spring course work
#11	1/8/76	Suggestions for use of instructional materials
#12	1/22/76	Regional Cross-Cultural Training and Resource Center (RCTRC): English-as-a- Second-Language
#13	1/29/76	Consultant: Audrey Riccio, Hunter College- "Individualizing Instruction: Diagnostic and Prescriptive Teaching"
#14	2/5/76	Consultant: Dr. Joshua Fishman, Institute for Advanced Study "Sociolinguistics and Bilingualism"
#15	2/6/76	Film: Mental Retardation
#16	2/19/76	Workshop Planning Groups
#17	2/26/76	Visit to: Avard School (Private facility for handicapped children)
#18	3/4/76	TESOL Convention (Americana Hotel)
#19	3/11/76	Program "Problems"/Suggestions for Continuation Proposal
#20	3/18/76	Consultant: Dr. Herbert Goldstein, Yeshiva University "The Social Learning Curriculum"

#21	3/25/76	Consultant: Dr. Nancy Ayala-Vazquez, Teachers College - "Retardacion Mental"
#22	4/1/76	Speech Workshop: The Language Master Program (Lydia Pagan) Regional Cross-Cultural Training and Resource Center (RCTRC): Math
#23	4/8/76	Visit: Santillana Publishers (Reading and Math series)
#24	5/6/76	Individualizing Instruction (Staff Presentation)
#25	5/13/76	Visit to Puerto Rican Family Institute (community services)
#26	5/27/76	Curriculum develpment: Speech and Language: "Stuttering:" Individualizing Instruction (staff presentations)
#27	6/3/76	Reading Instruction (staff presentation)
#28	6/17/76	End-term group work activities: Newsletter, Evaluation and Progress Reports, Seminar presentation
#29	6/24/76	Informal Staff evaluation and suggestions